CEWES-IM-DA 19 April 1994

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Minutes for the Hazardous, Toxic, and Radiological (HTRW) Field Working Group Meeting

Enclosed for your information are the minutes of the HTRW Field Working Group meeting held on 6 - 7 April 1994 at the USAE District, Tulsa, office located in Tulsa, Oklahoma.

Encl

CARL S. STEPHENS, PE
Director, Tri-Service CADD/GIS
Technology Center

CF:
Chiefs, Engineering Division
Field Technical Advisory Group
Executive Working Group
HTRW Field Working Group and Points of Contact
Geotechnical Field Working Group
Bobby Carpenter (CEWES-IM-DA)

MINUTES

Hazardous, Toxic, and Radioactive Waste (HTRW)
Field Working Group Meeting,
6 - 7 April 1994, Tulsa, Oklahoma

14 April 1994

Executive Summary

This document is a summary of the proceedings of the meeting of the Hazardous, Toxic, and Radioactive Waste (HTRW) Field Working Group that was held on 8 - 9 March 1994, at the USAE District, Tulsa office at Tulsa, Oklahoma.

The HTRW Field Working Group is funded through the Tri-Service CADD/GIS Technology Center, under the direction of Dr. N. Radhakrishnan, Director, Information Technology Laboratory, and Mr. Carl S. Stephens, Director of the Tri-Service CADD/GIS Technology Center. The Center functions under the guidance and direction of the Executive Steering Group composed of Mr. Gary Flora (Air Force), Mr. Harry Zimmerman (Navy), who is the present Chairman of the group, Mr. Paul Barber (Army), Mr. Get Moy (OSD), and Mr. Richard Armstrong (Army). The goals and objectives of the Center are reviewed and guided by the Executive Working Group, currently chaired by LTC Alex Formwalt (Air Force), and composed of Mr. Deke Smith (Navy), MAJ David Biecheuval (Air Force), Mr. Hugh Adams (Army), Mr. M. K. Miles (Army), Mr. Jim Carberry (Navy), and Mr. Tom Rutherford (OSD).

Dr. Robert W. Whalin is the Director of WES, and COL Bruce K. Howard is Commander.

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Tri-Service CADD/GIS Technology Center
Waterways Experiment Station
Vicksburg, Mississippi

MEETING AGENDA

HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)
FIELD WORKING GROUP MEETING

6 - 7 APRIL 1994
at
USAE District, Tulsa
Tulsa, Oklahoma

Wednesday, 6 April 1994

0830 Begin Meeting at Tulsa District office - Welcome and Introductions - Jim Krokee

0845 Tri-Service CADD/GIS Technology Center Overview and Status Report - Bobby Carpenter

0900 Presentation on Navy "ITEMS" initiative - Chris Kyburg

0930 Presentation on Air Force "IRPIMS" - Phil Hunter

1000 Discuss Agenda for Meeting with Geotech FWG

1030 BREAK

1045 Continue discussion

1200 LUNCH

1300-1700 **MEET WITH GEOTECH FWG**

1300 Introductions

1315 Discussion of Common Interests and Concerns

1345 Review and Discuss Geotech and HTRW Symbology

1500 BREAK

1515 Review and Discuss Geotech and HTRW Spatial Data Standards

1630 Summary of combined meeting

1700 ADJOURN

Thursday, 7 April 1994

0830 Presentation on HTRW Remediation Software (REOPT) - Sam Bass

0900 Review and Discuss HTRW Spatial Data Standards

1015 BREAK

1030 Continue Discussion of HTRW Spatial Data Standards

1200 LUNCH

1300 Discuss and develop scopes for recommended HTRW FWG tasks/projects

1430 BREAK

1445 Continue development of scopes

1530 Wrapup Meeting (Summary, schedule next meeting, etc.)

1600 ADJOURN

Hazardous, Toxic, and Radioactive Waste (HTRW)
FIELD WORKING GROUP

April 6 - 7, 1994 MEETING

LIST OF ATTENDEES

Jim Krokee NAVFACENGCOM, SW Div.(Code 1813.CK)	SW DIV NAVFACENGCOM	Naval Facilities Engrg. Command 1220 Pacific Hwy San Diego, CA 92132-5181	619-532-1229 Service Manager	619-532-1242	Environmental	
James Huang CEMP-RT Engineer	CEMP-RT	HQ U.S. Army Corps of Engineers 20 Massachusetts Ave, NW Washington, DC 20314-1000	202-272-8883	202-504-4879	Environmental	
Larry Mann CENPS-EN-GT	CENPS-EN-GT	USAE District, Seattle P.O. Box 3755 Seattle, WA 98124-2255	206-764-3711	206-764-3695	Geologist	
David A. Gustatson Programmer Analyst	CENPS-EN-GT	USAE District, Seattle CENPS-EN-GT P.O. Box 3755 Seattle, WA 98124-2255	206-764-6749	206-764-6816		
Glenn Kato Civil Engineer	CENPS-EN-GT	USAE District, Seattle CENPS-EN-GT P.O. Box 3755 Seattle, WA 90124-2255	206-764-6592	206-764-3695		
Jeffery Blunt AFZG-DPW-ENRD Bldg. 4196, 15th St.	AFZG-DPW-ENRD	CDR, Fifth USA & Ft. Sam Houston Fort Sam Houston, TX 78234-5000		210-221-4842	210-221-3410 Engineer	Environmental

Damon Cardenas Chief, Environmental Compliance	AFZG-DPW-ENRD AFZG-DPW-ENRD Bldg. 4196, 15th St.	CDR, Fifth USA & Ft. Sam Houston Fort Sam Houston, TX 78234-5000	210-221-4842	210-221-3410		
Carol Staudenmaier Civil Engineer Technician	CESWT-EC-DR	USAE District, Tulsa CESWT-EC-DR P.O. Box 61 Tulsa, OK 74121-0061	918-669-7047	918-669-7526		
Sam Bass Scientist	CEMRD-EP-TG CEMRD-EP-TG	USAE Division, Missouri River P.O. Box 103 Downtown Station Omaha, NE 68101-0103	402-221-7371	601-634-3080	Research	
Bobby Carpenter Environmental Engineer	CEWES-IM-DA	Tri-Service CADD/GIS Technology Center USAE WES 3909 Halls Ferry Road Vicksburg, MS 39180-6199	601-634-4572	601-634-4584		
Don Moses Chief, HTW/ Geotechnical	CEMRO-ED-GF 215 N. 17th Street	USAE Distrcit, Omaha CEMRO-ED-GF U.S. Post Office/Courthouse Omaha, NE 68102-4978	402-221-3077	402-221-4571		Section
Phil Hunter	AFCEE/ERC HQ AF Center for Environmental Excellance	Dept. of the Air Force AFCEE/ERC 8001 Inner Circle Dr., Suite 2 Brooks AFB, TX 78235-5128	210-536-5281	210-536-9026	Hydrologist	
Bart Ives Environmental Protection	DAIM-ED-C 600 Army Pentagon	HQ Dept. of the Army ATTN: DAIM-ED-R Director Environmental Programs Washington, DC 20310-0600	703-696-8081	703-696-8088	Specialist	
Dr. Francois Grobler Principal Investigator	CECER-FFC	USA CERL CECER-FFC P.O. Box 9005	217-373-6723	217-373-6724		

		Champaign, IL 61826-9005			
Chris Kyburg Chemical (Code 1813.CK)	Code 1813.CK	SW Division Naval Facilities Engineering Command 1220 Pacific Hwy. San Diego, CA 92132-5181		619-532-1998	619-532-2607 Engineer

PROCEEDINGS

Welcome and Introductions

Mr. Jim Krokee, HTRW Field Working Group Chairman, lead the welcome and introductions. Each person present at the meeting re-introduced themselves and provided a brief overview of their job and the activities in which they were involved. Copies of the final agenda, the HTRW POC list; the POC Database Information sheet; and the portions of the Tri-Service Spatial Data Standards (TSSDS) addressing geotechnical and HTRW data were passed out to those present.

Tri-Service CADD/GIS Technology Center Overview and Status Report

Mr. Bobby Carpenter provided an overview of the Tri-Service CADD/GIS Technology Center mission, functions, organization, activities, projects, and field working groups. A copy of the Viewgraphs presented by Mr. Carpenter is included in Appendix A.

The Tri-Service CADD/GIS Technology Center was established at the Waterways Experiment Station in October 1992 as a result of the Defense Management Review Document (DMRD) No. 982. DMRD 982 contained the following recommendation:

"Computer Aided Design and Drafting (CADD) Systems:
considers the proposition of establishing a single office to set standards, accomplish procurement, and provide assistance for the training, operation, and maintenance of Computer Aided Design and Drafting Systems. The Army Corps of Engineers Waterways Experiment Station is the recommended single office."

The function of the Tri-Service CADD/GIS Technology Center is to function as a coordination center and rely on capabilities throughout DoD for the accomplishment of specific tasks and application development related to CADD/GIS applications and technology. The functions of the center are to provide limited applications development, promote communications, develop standards, promote technical consultancy, provide a technical role in acquisitions, interface with professional organizations and industry, evaluate technological developments, and to recommend necessary CADD/GIS policy. The Tri-Service CADD/GIS Technology Center primarily supports Intergraph MGE, ESRI ARC/INFO, and GRASS Geographic Information System (GIS) application packages, and Intergraph Microstation and Autodesk AutoCAD Computer Aided Drafting and Design (CADD) application packages.

Tri-Service GIS Spatial Data Standards

The purpose of the Tri-Service Spatial Data Standards is to provide a DoD standard format structure for GIS applications at Tri-Service installations.

A copy of Release 1.2 of the TSSDS, dated 19 November 1993, had been mailed to each member, advisor, and proponent of the HTRW Field Working Group. Release 1.2 consisted of an introductory section and the data dictionary. Later releases will contain an expanded data dictionary, a symbols dictionary, and load diskettes. A copy of the draft symbols dictionary which had been recently mailed to each member, advisor, and proponent of the FWG, was furnished to the meeting attendees.

Navy "ITEMS" Initiative Overview

Mr. Chris Kyburg, SW Div. NAVENGCOM, discussed Navy's IT Corporation Environmental Management System (ITEMS). ITEMS is a relational database application (which operates on an Oracle database) for the storage and retrieval of sampling, analysis, and geological environmental data. The purpose of ITEMS is to accurately represent industry typical practice and EPA standard sampling and analytical requirements. ITEMS data can be loaded into other relational database systems. When the development of ITEMS is complete, Contractors will be required to submit environmental data in electronic format compatible with the central relational database repository. Overview information concerning "ITEMS" is contained in Appendix B.

Air Force "IRPIMS"

Mr. Phil Hunter, AFCEE/ERC, presented an overview of the Air Force Installation Restoration Program Information Management System (IRPIMS) which is maintained at the Air Force Center for Environmental Excellance at Brooks AFB, Texas. IRPIMS components consist of (1) Contractor data loading tool (CDLT) + Quality Control tool (QCT), (2) AF Wide IRPIMS Central Archive Batchloader, and (3) Distributed IRPIMS (DI). The view graphs used in the presentation are included in Appendix C. IRPIMS uses an Oracle database with electronic data loading, and runs on either a MS-DOS personal computer (PC) or Unix Workstation. Over 4 million records are currently in the IRPIMS database. The IRPIMS program also contains the following six manuals:

Volume I - IRPIMS System Overview
Volume II - IRPIMS Administrative User's Guide
Volume III - IRPIMS Technical User's Guide
Volume IV - IRPIMS Technical Data Entry User's Guide
Volume V - IRPIMS Data and Database Administrator's User's

Guide
Volume VI - IRPIMS Data Dictionary

Other Air Force information systems consist of WIMS-ES, DPM, RACER, ENVEST, ReOPT, RAAS, MEPAS, and DSS.

Joint Meeting with Geotechnical Field Working Group

The HTRW and Geotechnical FWGs conducted a joint meeting on the afternoon of 6 April 1994 for the purpose of discussing overlapping areas of interest and for determining the areas to be addressed by each group.

One example of joint interest which was discussed was a monitoring well. Monitoring well is included as a subtopic under the topic "Wells" in Chapter 4, "Geology", of the TSSDS. The Attribute Table for monitoring well is entitled "geo_well", which contains general well data elements which are applicable to all types of wells (e.g., depth, top and bottom elevations, etc.). Personnel involved in addressing HTRW issues need to have the general well information contained in teh "geo_well" table plus additional data specific to HTRW (e.g., sample data, chemical data, etc.). The HTRW specific information would be included in an attribute table listed under a subtopic for monitoring well in Chapter 23, "Environment/Hazard". The HTRW specific attribute table would then be joined to the "geo_well" attribute table so that all of the monitoring well data is available, but does not have to be repeated.

The Geotechnical FWG indicated that they wanted to revise Chapter 4 of the TSSDS and the draft symbols dictionary prior to discussing the TSSDS in detail. It was suggested that a small group consisting of up to three members from each FWG would meet at a later date to discuss the details of Chapters 4 and 23 of the TSSDS.

A general "ownership" breakdown of common HTRW and Geotechnical features was arrived at and consists of the following:

a. Monitoring Wells
   (1) Physical Characteristics (e.g., design & construction details)- Geotech FWG.
   (2) Chemical Characteristics - HTRW FWG.

b. Groundwater Modeling - HTRW FWG.

c. Soil Sampling -
   (1) Physical Characteristics - Geotech FWG.
   (2) Chemical Characteristics - HTRW FWG

d. Aquifer Parameters - Geotech FWG.

e. Surface Geology - Geotech FWG.

f. Subsurface Geology - Geotech FWG.

g. Landfill Design - Geotech FWG.

h. Landfill Monitoring, etc. - HTRW FWG.

i. Dewatering - Geotech FWG.

j. Geotechnical Remediations (e.g., slurry walls) - Geotech FWG.

k. Gas Monitor Wells -
(1) Physical Characteristics - Geotech FWG.
(2) Chemical Characteristics - HTRW FWG.

l. Instruments -
(1) Instruments that monitor or measure physical parameters only - Geotech FWG.
(2) Instruments that monitor or measure chemical parameters only - HTRW FWG.

m. Soil Characterization -

(1) Physical Characteristics - Geotech FWG.
(2) Chemical Characteristics - HTRW FWG.

"ReOpt" HTRW Remediation Software Presentation

Mr. Sam Bass, USACE Missouri River Division, provided a brief overview of the HTRW Remediation Software entitled ReOpt. ReOpt was developed by Pacific Northwest Laboratory under a contract with the Department of Energy. The software is available at no charge if it will be used only on projects funded by the Federal Government. Information concerning ReOpt is included in Appendix D. In summary, ReOpt provides information on the "accepted" treatment technologies for various contaminants as well as basic contaminant information.

Discussion of HTRW FWG Concerns

Various aspects and considerations related to the HTRW FWG and to Tri-Service HTRW remediation issues were discussed on 6-7 April, 1994. Many of those that were brought before the group are

summarized below:

a. The Army Materiel Command (AMCCOM) at Rock Island has expertise in Radioactive waste issues.

b. The Field Working Groups (FWGs) should have a better representation of installation type Army, Navy, and Air Force members.

c. There should be more coordination between the FWGs to avoid areas of subject matter overlap and ensure consistency of goals and objectives. The HTRW FWG needs to coordinate with the Facilities Management FWG to identify and address HTRW treatment processes.

d. It is recommended that each FWG assume ownership of the chapter(s) or table(s) of the TSSDS that addresses their area of expertise. Each FWG should know the areas they are responsible for.

e. Since the FWGs are limited to 10 members, each FWG member should coordinate with their counterparts at other offices and installations and bring their input to the FWG meetings.

f. Installations will not use the TSSDS unless mandated, unless the TSSDS proves to facilitate their work, can be easily updated, and makes their job easier.

g. Damon Cardenas, Chief Environmental Compliance, Ft. Sam Houston, Texas, indicated that installation restoration (IR) was a small part of his normal workload. Most of his normal workload is involved with facilities management type issues (e.g., sanitary, environmental compliance, permitting, monitoring, etc.).

h. There will be a DOA Hazardous Materials Management Conference in June 1994.

i. The Marines and Army are researching Ordnance & Explosive Waste (OEW) risks and range safety. Formerly Used Defense Sites (FUDS) and stockpiled OEW should also be investigated and addressed in the TSSDS.

j. The HTRW FWG needs a chemist representative as either a member, advisor, or proponent.

k. The portions of the TSSDS which are required to address each HTRW issues should be identified. Speciality application packages should be developed to perform routine environmental and HTRW reporting, monitoring, compliance, remediation, and management requirements.

l. It is recommended that USAE Division, Huntsville, be contacted concerning the availability of standard military details and symbols. TB 5-803-3-1, Guidelines for the Preparation of Automated Map Data Bases at Army Installations, also contains symbols.

m. It is questionable whether special symbols are needed for the different HTRW treatment systems. They could be shown as a point or polygon and labeled.

n. Ft. Sam Houston uses codes for different building categories (e.g., asbestos contamination, not contaminated, etc.).

o. Different symbols will be required to designate the same feature at different map scales.

p. Different symbols are required for underground and aboveground storage tanks. A query with a unique symbol should be developed to indicate which buildings are contaminated. Other queries should be developed to designate the type and level of contamination (e.g., asbestos, lead, radon, etc.).

q. The symbology used for CADD applications should be the same as used for GIS applications. One such symbol is the monitoring well symbol that the USAE District, Tulsa, has in it's CADD HTRW design symbol library. Should the monitoring well symbol be included in the HTRW symbol library, Geotechnical symbol library, or both?

r. It was recommended that each of the HTRW FWG members, advisors, and proponents use the Defense Bulletin Board. The DENIX Hotline can be reached at phone no. 1-800-642-3332 to get a password and information packet.

s. The HTRW FWG indicated that the primary features they wanted to see automatically on each installation map included. Other features and information could be obtained through queries.

(1) Site Plan (Show assets, buildings, utitilities, & general mapping features).

(2) Pollution Locations (e.g., IR site No. 6).

(3) Facility Management Information (e.g., processes (oil-water separators, etc.).

(4) Building Sites (Building pollution, etc.).

t. The following features should automatically be shown on all maps of Installation Restoration Program (IRP) sites:

(1) Aboveground Storage Tanks (ASTs).

(2) Underground Storage Tanks (USTs).

(3) Hazardous material and HTRW Storage Areas.

(4) Contamination Points and Plumes.

(5) Processes.

(6) Monitoring Wells.

(7) Site Outline.

u. The primary features that should appear on USGS topographic type maps are general tank locations and area boundaries.

v. On a state or county highway type map only general features (e.g., IRP location) should appear.

w. EPA Publication No. 813/B-92-002, July 1992, "Definitions for the Minimum Set of Data Elements for Ground Water Quality" should be reviewed with the applicable portions incorporated into the TSSDS.

TSSDS Review and Discussion

Following Mr. Bass's presentation of the ReOpt software, the HTRW FWG reviewed and discussed the organization and content of the topics and subtopics in Chapter 23, "Environment/Hazard. Based upon this review, the HTRW FWG recommended that the topics in Chapter 23 be reorganized and revised as follows:

23.1 **Topic Name:** Environment/Hazard*General Pollution.
23.2 **Topic Name:** Environment/Hazard*Air Pollution.
23.3 **Topic Name:** Environment/Hazard*Land Pollution.
23.4 **Topic Name:** Environment/Hazard*Water Pollution.
23.5 **Topic Name:** Environment/Hazard*Facility/Building Pollution.
23.6 **Topic Name:** Environment/Hazard*Hazardous Substances.
23.7 **Topic Name:** Environment/Hazard*Medical Waste.
23.8 **Topic Name:** Environment/Hazard*Remediation.
23.9 **Topic Name:** Environment/Hazard*Solid Waste.
23.10 **Topic Name:** Environment/Hazard*Radioactive Waste.
23.11 **Topic Name:** Environment/Hazard*Mixed Waste.
23.12 **Topic Name:** Environment/Hazard*Ordnance/Explosive Waste (OEW).

23.13 **Topic Name:** Environment/Hazard*Chemical Surety Material (CSM).
23.14 **Topic Name:** Environment/Hazard*Hazardous Site Safety.
23.15 **Topic Name:** Environment/Hazard*Sediment Pollution.
23.16 **Topic Name:** Environment/Hazard*Environmental Conservation.

HTRW FWG Tasks

1. Each FWG member would coordinate with counterparts at other offices and installations and bring their input to the FWG meetings.

2. Each member, advisor, and proponent of the FWG would made arrangements to use the Defense Bulletin Board. Communication and the exchange of information would be accomplished through the bulletin board.

3. Two to three members would meet with representatives of the Geotechnical FWG to provide a detailed review of the geotechnical and HTRW portions of the TSSDS. This meeting will be scheduled after comments received from a 11 - 14 April 1994 Headquarters review of the TSSDS have been resolved with resolutions incorporated into the TSSDS.

4. Revisions to Chapter 23 of the TSSDS will be sent to the HTRW FWG members, advisors, and proponents for review and comment.

5. A sample Scope of Work (SOW) for proposed projects was passed out to the attendees. The attendees will review their work activities and identify areas where new or improved CADD/GIS applications are needed. These ideas will be presented at the next FWG meeting.

6. The next HTRW FWG meeting was tentatively set for early August 1994 at Ft. Sam Houston, San Antonio, Texas. The meeting will probably be 3 days and possible include a field trip to Brooks AFB.

7. Comments on the draft symbol dictionary were received at the meeting. A copy of those received is included in Appendix E. Any additional comments will be submitted to Mr. Carpenter at the Tri-Service CADD/GIS Technology Center.

APPENDIX A

TRI-SERVICE CADD/GIS TECHNOLOGY CENTER OVERVIEW AND STATUS

APPENDIX B

"ITEMS" OVERVIEW

APPENDIX C

"IRPIMS" OVERVIEW

APPENDIX D

ReOpt HANDOUT

APPENDIX E

HTRW SYMBOLOGY COMMENTS

APPENDIX F

ACRONYM DEFINITIONS

ACRONYM DEFINITIONS

CADD - Computer Aided Design and Drafting

GIS - Geographic Information System

FWG - Field Working Group

POC - Point of Contact

HTRW - Hazardous, Toxic, and Radiological Waste

EPA - Environmental Protection Agency

TSSDS - Tri-Service GIS Spatial Data Standards

OEW - Ordnance and Explosive Waste

CSM - Chemical Surety Material